

Table A-4. Chemical concentrations in invertebrate tissues estimated from measured sediment concentrations.

Chemical	log Kow	BSAF ¹	Chronic 95% UCL Sediment Concentration, Study 20 (mg/kg-dry)					Estimated Chronic Tissue Concentration - Invertebrates (mg/kg-wet)				
			RM 0-3.2	RM 3.2-4.9	RM 4.9-6.5	RM 6.5-8.8	RM >8.8	RM 0-3.2	RM 3.2-4.9	RM 4.9-6.5	RM 6.5-8.8	RM >8.8
Mean % Total Organic Carbon (TOC)			4.5	3.7	5.5	5.8	-	-	-	-	-	
% Lipids (Estimated)			-	-	-	-	-	1.05	1.05	1.05	1.05	-
PAHs												
Anthracene	4.53	0.67	3.375	3.043	5.218	9.655	-	0.529	0.585	0.667	1.178	-
Benzo[a]anthracene	5.67	0.61	2.907	3.195	1.920	5.913	-	0.412	0.556	0.222	0.653	-
Benzo[a]pyrene	6.11	0.59	3.109	2.828	1.827	6.385	-	0.425	0.474	0.203	0.679	-
Benzo[b]fluoranthene	6.27	0.58	2.969	2.379	2.453	7.317	-	0.400	0.393	0.269	0.767	-
Benzo[g,h,i]perylene	6.51	0.57	3.240	1.872	4.891	4.610	-	0.427	0.303	0.526	0.473	-
Benzo[k]fluoranthene	6.29	0.58	3.098	3.136	2.399	8.048	-	0.416	0.517	0.263	0.842	-
Chrysene	5.71	0.61	3.157	2.448	2.833	8.979	-	0.446	0.425	0.327	0.988	-
Dibenz[a,h]anthracene	6.71	0.56	3.735	2.983	5.218	9.575	-	0.484	0.474	0.551	0.966	-
Fluoranthene	5.08	0.64	4.452	4.744	4.389	20.153	-	0.665	0.869	0.535	2.344	-
Indeno[1,2,3-cd]pyrene	7.1	0.54	3.052	2.630	1.837	4.590	-	0.382	0.404	0.188	0.447	-
Phenanthrene	4.57	0.67	3.754	3.474	4.647	7.151	-	0.586	0.666	0.592	0.870	-
Pyrene	4.92	0.65	3.946	4.013	3.912	12.705	-	0.598	0.746	0.484	1.498	-
PCBs												
PCB Aroclor 1242	6.04	2.1	0.447	2.586	2.428	2.038	-	0.219	1.552	0.969	0.776	-
PCB Aroclor 1260	6.04	2.1	0.078	0.092	0.119	0.519	-	0.038	0.055	0.047	0.198	-
Pesticides												
4,4'-DDD (p,p'-)	5.75	2.0	0.012	0.019	0.036	0.063	-	0.006	0.011	0.014	0.023	-
4,4'-DDE (p,p'-)	5.77	2.0	0.015	0.028	0.041	0.034	-	0.007	0.016	0.016	0.012	-
4,4'-DDT (p,p'-)	5.96	2.0	0.004	0.004	0.013	0.014	-	0.002	0.002	0.005	0.005	-
Aldrin	5.86	2.0	0.015	0.070	0.042	0.011	-	0.007	0.040	0.016	0.004	-
alpha-Chlordane	6.1	2.0	0.005	0.006	0.014	0.018	-	0.002	0.004	0.005	0.006	-
d-BHC	4.12	2.0	0.002	0.006	0.012	0.001	-	0.001	0.004	0.005	0.000	-
Dieldrin	4.62	2.0	0.015	0.023	0.013	0.015	-	0.007	0.013	0.005	0.005	-
Endosulfan II	3.62	2.0	0.004	0.012	0.014	0.028	-	0.002	0.007	0.005	0.010	-
Endrin ketone	5.02	2.0	0.004	0.006	0.007	0.036	-	0.002	0.003	0.003	0.013	-
gamma-Chlordane	6.26	2.0	0.011	0.018	0.017	0.008	-	0.005	0.010	0.006	0.003	-
Heptachlor	4.69	2.0	0.004	0.007	0.003	0.001	-	0.002	0.004	0.001	0.000	-
Heptachlor epoxide	3.92	2.0	0.020	0.058	0.026	0.017	-	0.009	0.033	0.010	0.006	-
Semivolatile Organics												
bis(2-Ethylhexyl)phthalate	4.87	0.65	3.203	6.820	5.239	23.341	-	0.488	1.273	0.650	2.765	-
Di-n-octylphthalate	8.58	0.47	3.761	4.321	5.049	1.924	-	0.414	0.583	0.453	0.165	-

¹ The BSAFs for PAHs and certain "Other Organics" are based on a wet weight lipid concentration in biota, while the BSAFs for PCBs and pesticides are based on a dry weight lipid concentration. When a dry weight BSAF was used, the concentration was calculated back to wet weight using an estimated percent moisture of 80%.

Table A-4. Chemical concentrations in invertebrate tissues estimated from measured sediment concentrations.

Chemical	log Kow	BSAF ¹	Acute 95% UCL Sediment Concentration, Study 20 (mg/kg-dry)					Estimated Acute Tissue Concentration - Invertebrates (mg/kg-wet)				
			RM 0-3.2	RM 3.2-4.9	RM 4.9-6.5	RM 6.5-8.8	RM >8.8	RM 0-3.2	RM 3.2-4.9	RM 4.9-6.5	RM 6.5-8.8	RM >8.8
Mean % Total Organic Carbon (TOC)			4.5	3.7	5.5	5.8	-	-	-	-	-	
% Lipids (Estimated)			-	-	-	-	-	1.05	1.05	1.05	1.05	-
PAHs												
Anthracene	4.53	0.67	5.464	4.108	7.143	13.028	-	0.857	0.790	0.914	1.590	-
Benzo[a]anthracene	5.67	0.61	5.472	4.478	2.340	7.692	-	0.776	0.779	0.271	0.850	-
Benzo[a]pyrene	6.11	0.59	5.487	4.133	2.082	8.347	-	0.749	0.692	0.232	0.887	-
Benzo[b]fluoranthene	6.27	0.58	5.278	3.411	2.865	9.540	-	0.711	0.563	0.315	1.000	-
Benzo[g,h,i]perylene	6.51	0.57	5.566	2.898	7.339	5.944	-	0.734	0.468	0.789	0.610	-
Benzo[k]fluoranthene	6.29	0.58	5.599	4.543	2.892	10.533	-	0.753	0.749	0.317	1.102	-
Chrysene	5.71	0.61	5.681	3.784	3.269	11.725	-	0.803	0.656	0.377	1.291	-
Dibenz[a,h]anthracene	6.71	0.56	5.906	4.431	7.143	12.909	-	0.765	0.704	0.755	1.302	-
Fluoranthene	5.08	0.64	7.720	7.761	5.191	26.430	-	1.153	1.422	0.633	3.074	-
Indeno[1,2,3-cd]pyrene	7.1	0.54	5.457	3.874	2.254	5.963	-	0.683	0.595	0.230	0.581	-
Phenanthrene	4.57	0.67	5.906	4.973	7.276	9.243	-	0.923	0.953	0.927	1.124	-
Pyrene	4.92	0.65	6.967	6.424	4.718	16.497	-	1.056	1.194	0.583	1.946	-
PCBs												
PCB Aroclor 1242	6.04	2.1	0.589	3.846	3.667	2.751	-	0.288	2.308	1.464	1.048	-
PCB Aroclor 1260	6.04	2.1	0.116	0.134	0.182	0.682	-	0.057	0.081	0.072	0.260	-
Pesticides												
4,4'-DDD (p,p ⁻)	5.75	2.0	0.021	0.027	0.053	0.082	-	0.010	0.015	0.020	0.030	-
4,4'-DDE (p,p ⁻)	5.77	2.0	0.023	0.037	0.061	0.044	-	0.011	0.021	0.023	0.016	-
4,4'-DDT (p,p ⁻)	5.96	2.0	0.005	0.004	0.020	0.018	-	0.002	0.003	0.008	0.007	-
Aldrin	5.86	2.0	0.020	0.110	0.070	0.014	-	0.009	0.063	0.027	0.005	-
alpha-Chlordane	6.1	2.0	0.007	0.009	0.021	0.023	-	0.003	0.005	0.008	0.008	-
d-BHC	4.12	2.0	0.003	0.010	0.022	0.001	-	0.001	0.006	0.008	0.000	-
Dieldrin	4.62	2.0	0.022	0.036	0.020	0.020	-	0.010	0.021	0.008	0.007	-
Endosulfan II	3.62	2.0	0.005	0.020	0.024	0.037	-	0.002	0.011	0.009	0.013	-
Endrin ketone	5.02	2.0	0.005	0.009	0.010	0.047	-	0.002	0.005	0.004	0.017	-
gamma-Chlordane	6.26	2.0	0.021	0.025	0.022	0.008	-	0.010	0.014	0.009	0.003	-
Heptachlor	4.69	2.0	0.006	0.011	0.005	0.001	-	0.003	0.006	0.002	0.000	-
Heptachlor epoxide	3.92	2.0	0.025	0.096	0.046	0.022	-	0.012	0.055	0.017	0.008	-
Semivolatile Organics												
bis(2-Ethylhexyl)phthalate	4.87	0.65	5.383	11.052	7.191	31.187	-	0.819	2.063	0.893	3.694	-
Di-n-octylphthalate	8.58	0.47	5.761	6.582	7.769	2.329	-	0.634	0.888	0.697	0.199	-

¹ The BSAFs for PAHs and certain "Other Organics" are based on a wet weight lipid concentration in biota, while the BSAFs for PCBs and pesticides are based on a dry weight lipid concentration. When a dry weight BSAF was used, the concentration was calculated back to wet weight using an estimated percent moisture of 80%.